UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,242	12/20/2001	Ralph L. Anderson	KCX-462 (15879)	9073

22827 7590 12/10/2004

DORITY & MANNING, P.A.
POST OFFICE BOX 1449
GREENVILLE, SC 29602-1449

EXAMINER	
TORRES VELAZQUEZ, NORCA LIZ	
ART UNIT	**PAPER NUMBER**
1771	

DATE MAILED: 12/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/027,242	ANDERSON ET AL.	
	Examiner	Art Unit	
	Norca L. Torres-Velazquez	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *39-56* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *39-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *71904 110804*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 17, 2004 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 39-44, 49-51, 55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over SUSKIND et al. (US 4,808,467) in view of ANNABLE (US 6,797,226 B2) and ANDERSON et al. (US 6,103,061).

SUSKIND et al. discloses a continuous filament base web and a separately formed fibrous layer or web composed of a mixture of wood pulp fibers and textile fibers that are spunlaced into one another to provide a nonwoven fabric. (Col. 2, lines 12-16) The continuous filament web and the fibrous web are separately formed and brought together as separate layers or plies and then subjected to hydraulic entanglement to produce a single composite spunlaced fabric. (Col. 2, lines 21-25) The reference also teaches the use of staple fibers in the fibrous layer. (Col. 2, lines 32-33) Teaches the use of staple fiber lengths in the range of from about three eights inch [*as related to claim 42*] to about one inch. (Col. 2, lines 56-58) The wood pulp

fiber content of the reinforced nonwoven web may be in the range of from about 40 weight percent to about 90 weight percent. (Col. 2, lines 63-66) The reference teaches the use of polymer blend in the continuous filaments and teaches the use of polyethylene, polypropylene, polyester and nylon. [*as related to claim 44]* Further, the reference teaches that bonding of the continuous filament web is essential when produced in a separate step, in which case the bonding area should not exceed about fifteen percent of the total area of the web for best result. Bonding in the range of six to ten percent area bonded is preferred. (Col. 3, lines 7-16)

It is the Examiner's interpretation that the SUSKIND et al. provides a nonwoven web that can be formed from continuous filaments of polymer blends (equated to multicomponent thermoplastic fibers) and a fibrous web that comprises from about 40-90% wood pulp. SUSKIN et al. teaches hydraulic entanglement of the two webs to produce a single composite spunlaced fabric.

With regards to claim 41, SUSKIND teaches in Example 6 the use of 20% staple fibers. (Col. 8, lines 50-51)

While SUSKIND et al. teaches the main structure of the composite, it fails to teach that the nonwoven web is creped and that the continuous filaments of polymer blends are splittable.

ANNABLE is directed to a method for forming a wiping product. The wiping product contains a fabric formed from a nonwoven web that is bonded by micro creping at least one side of the web. The nonwoven web can contain melt-spinnable fibers, such as polyolefins. (Abstract) The reference teaches that after forming the fibers into a web, the web can then be bonded to improve the strength of the web and teaches using microcreping, which is a mechanical compaction process normally used in the art to soften a web. By bonding the web

using microcreping, the resulting bulk, absorption capacity, and softness of the fabric can be improved, while also imparting sufficient strength to the web so that it may be used as a wiper. (Col. 2, lines 7-15) The reference further teaches the formation of micro-folds. [*as related to claim 51*] (Col. 2, line 39) The reference further teaches the use of conjugate or biconstituent fibers or filaments. (Col. 5, lines 54-59) The reference further refers to "conjugate fibers" in terms of multicomponent fibers and teaches different arrangements such as side-by-side arrangement. [*as related to claim 43]* (Col. 3, lines 25-40)

However, the reference is silent to the multicomponent fibers being splittable.

ANDERSON et al. is directed to absorbent products such as industrial wipers. The reference teaches a composite material that contains a hydraulically entangled web that includes a fibrous component and a nonwoven layer of substantially continuous filaments. The reference teaches the use of substantially continuous filaments such as conjugate spun filaments and further teaches that these may be splittable fibers. (Col. 3, lines 26-50) The reference provides a similar structure but uses creping at least one side of the material after it has been hydraulically entangled. (Col. 2, lines 31-36)

Since the references are directed to nonwoven materials, the purpose disclosed by ANNABLE and ANDERSON would have been recognized in the pertinent art of SUSKIND et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the nonwoven fabric of SUSKIND et al. and provide the nonwoven web with multicomponent fibers that are splittable and subject the web to a microcreping process prior to entangling it to the fibrous material with the motivation of

providing the composite with a web that has improved bulk, absorption capacity and softness as disclosed by ANNABLE above and ANDERSON et al. (Refer to col. 1, lines 16-18)

4. Claims 46-48 and 52-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over SUSKIND et al., ANNABLE and ANDERSON as applied above, and further in view of FITTING (US 5,573,719).

The prior art above fails to teach that the nonwoven web is also mechanically stretched.

FITTING teaches a process for producing a highly absorbent, high strength wiper. (Abstract) The reference teaches stretching the web by applying tension in the machine, cross machine or both directions and teaches doing so by suitable processed which include mechanical stretching. (Refer to Col. 2, lines 44-61) The reference further teaches that although the desirable degree of stretch may vary widely, in general, a higher level of stretch results in an absorbent nonwoven web having a higher absorbent capacity. (Col. 2, lines 61-64) As highly suitable embodiment the reference teaches a nonwoven web stretched up to about 50%. (Col. 3, line 1)

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the nonwoven web and provide with mechanical stretching at the ranges taught by FITTING with the motivation of providing the web with higher absorbency capacity as disclosed by FITTING above.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686

F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 39, 44-45, 49, 50, 51, 55 and 56 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 35-39, 41, 42, 47, 48-52, 53, 54, 58, 59 and 62 of copending Application No. 10/328,846. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the copending application comprise all the elements of the present application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7. Claims 39, 40, 44, 49, 50, 51, 55 and 56 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 16-25 of copending Application No. 10/328,751. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the copending application comprise all the elements of the present application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 39, 44, 49, 50, 55 and 56 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of copending Application No. 10/328,450 in view of ANDERSON et al. (US 6,103,061). The

copending application claims that the nonwoven web comprises monocomponent thermoplastic fibers instead of the presently claimed multicomponent thermoplastic fibers. ANDERSON '061 is directed to a method of making a nonwoven composite material similar in structure to the one in the copending application (refer to claims), and teaches the use of continuous filaments and that these may be monocomponent filaments or they may be conjugate spun filaments. (Col. 3, lines 43-50) Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the filaments of the copending application and provide the nonwoven with conjugate filaments (multicomponent) with the motivation of providing an alternate embodiment that will also produce an absorbent product with good bulk, a soft feel and high absorbency as disclosed by ANDERSON et al. '061 (Col. 1, lines 16-17)

This is a provisional obviousness-type double patenting rejection.

8. Claims 39, 40, 41, 42 and 51 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 35-37, 40-42 and 44 of copending Application No. 10/744,606. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the copending application comprise all the elements of the present application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Norca L. Torres-Velazquez
Examiner
Art Unit 1771

December 8, 2004